STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	**)**	
	)	**13-0495**
Approval of the Energy Efficiency and	**)**	
Demand Response Plan Pursuant to	**)**	
Section 8-103(f) of the Public Utilities Act	**)**	

INITIAL BRIEF OF THE CITIZENS UTILITY BOARD AND THE CITY OF CHICAGO

Kristin Munsch
CITIZENS UTILITY BOARD
309 W. Washington St., Ste. 800
Chicago, IL 60606
(312) 263-4282
kmunsch@citizensutilityboard.org

Orijit Ghoshal
THE CITY OF CHICAGO
30 N. LaSalle Street, Suite 900
Chicago, Illinois 60602
(312) 744-6936
orijit.ghoshal@cityofchicago.org

December 13, 2013

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	**)**	
	)	**13-0495**
Approval of the Energy Efficiency and	**)**	
Demand Response Plan Pursuant to	**)**	
Section 8-103(f) of the Public Utilities Act	**)**	

INITIAL BRIEF OF THE CITIZENS UTILITY BOARD AND THE CITY OF CHICAGO

Now comes the Citizens Utility Board ("CUB"), by and through one of its attorneys and the City of Chicago ("City"), by and through its attorney, Corporation Counsel Stephen R. Patton, to file this Initial Brief pursuant to the Rules of Practice of the Illinois Commerce Commission ("ICC" or "the Commission"), 83 Ill. Admin. Code §200.800, and the schedule established in this case by the Administrative Law Judge ("ALJ").

I. Introduction

Commonwealth Edison Company ("ComEd" or "Company") submitted its 2014-2016 Energy Efficiency and Demand Response Plan ("Plan") pursuant to Section 8-103 of the Public Utilities Act ("the PUA" or "the Act"). 220 ILCS 5/8-103. ComEd's Plan presents a portfolio of electric energy efficiency programs, including programs administered in conjunction with the Illinois Department of Commerce and Economic Opportunity ("DCEO"), designed to achieve the Energy Efficiency Portfolio Standard ("EEPS") statutory energy savings goals within the statutory spending screens. ComEd Ex. 1.0 at 1-2. ComEd is requesting the ICC approve the following features of its Plan:

- Modification of the statutory energy savings goals for Electric Plan Years ("PY") 7 through 9 based upon the spending screens calculated by ComEd under Section 8-103 of the Act. ComEd Ex. 2.0 at 16.

- Flexibility to adjust program budgets, goals, incentives, and measures across the portfolio. ComEd Ex. 2.0 at 44.
- The carry over of banked savings from PYs 1-6 to PYs 7-9, and carrying over future savings from PYs 7-9 to future years. ComEd Ex. 2.0 at 60-61.
- Proposed allocation of energy efficiency measures between ComEd and DCEO. ComEd Ex. 2.0 at 24-25.
- Modifications to the net to gross ("NTG") framework used in the evaluation of ComEd's energy efficiency programs. ComEd Ex. 2.0 at 64.
- Program evaluations that must include spillover in addition to free ridership. ComEd Ex. 2.0 at 66.
- Even while maintaining the AC/Cycling program, meeting the demand response goal through implementation of energy efficiency programs. ComEd Ex. 1.0 at 15.

The Plan is cost-effective at the portfolio level, as required by law, and includes a wide range of energy efficiency programs that reach all customer classes that fund the EEPS programs. CUB-City Ex. 1.0 at 5. It includes many programs that have been approved by the Commission in previous three-year plan proceedings, during the implementation of which ComEd has consistently exceeded electric energy efficiency targets set by the Commission for those prior years. *See* generally ICC Docket No.s 07-0540 and 10-0570.

The Commission should approve the Plan with CUB-City's recommendations, which would ensure that ComEd will achieve the maximum possible energy efficiency savings under the spending screen, and ensure that NTG estimates are more accurate. The Commission should also require ComEd to file a revised Plan incorporating these recommendations.

II. ComEd Should Maximize Energy Savings

The EEPS requires electric utilities to implement cost effective energy efficiency measures to meet the following incremental annual energy savings goals:

- 1.8% of energy delivered in the year commencing June 1, 2014 (PY7);
- 2.0% of energy delivered in the year commencing June 1, 2015 (PY8);
- 2.0% of energy delivered in the year commencing June 1, 2016 (PY9);

In a change from prior plans, the law now provides that electric utilities may meet these goals by meeting the annual incremental savings goal in the applicable year or by showing that the total cumulative annual savings within a 3-year planning period associated with the measures implemented after May 31, 2014 was equal to the sum of each annual incremental savings requirement from May 31, 2014 through the end of the applicable year. 220 ILCS 5/8-103(b). This provision effectively eliminates the need for intra-Plan banking of savings since ComEd can add all three years together to meet the ultimate PY9 goal the statute requires.

The law does allow ComEd to reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increase in the amounts paid by customers to no more than approximately 2%. In effect, this means that the Company's budget in any 3-year planning period is limited by this statutory "spending screen." With the spending screen, ComEd calculated its EEPS budget for PYs 7, 8, and 9 at approximately $117.75 million, $119.03 million, and $119.53 million, respectively, exclusive of the DCEO portion of the budget. ComEd Ex. 2.0 at 11. The Company then proposed modified goals which translate to 0.71%, 0.68%, and 0.66% reductions in usage in PYs 7-9, respectively, absent the DCEO portion of the goal, as compared to the statutory goals of 1.8%, 2.0%, and 2.0% over the same time frame. ComEd Ex. 2.0 at 10-11. In megawatt hour ("MWH") reductions, the

proposed savings translate to 565,593 MWH, 548,664 MWH, and 523,856 MWH respectively over the same plan years. ComEd Ex. 2.0 at 10-11. These goals are 20,000 MWH fewer than the total projected energy savings for each Plan year. *Id.* at 10. Thus, ComEd is asking the Commission for a further reduction in savings goals, solely to insure the Company against the risk associated with not meeting the goals. In sum, ComEd's proposed electric savings goals are only 37% of what the statute requires. ComEd Ex. 2.0 at 11.

ComEd's past performance indicates that the Company can achieve more savings than the Company has proposed, even under the supposed constraints of the spending screen. As illustrated in Table 1 below, since PY 4, ComEd's program budget[1] has consistently hovered around $100 million. CUB-City Ex. 1.0 at 9. ComEd achieved savings of 943,704 MWH in PY 4, and projected savings (ex ante) of 944,529 MWH in PY 5. Yet ComEd is projecting the Company can only achieve savings of approximately 518,750 MWH each year in PYs 7-9. This is an average of 425,366 MWH less than what the Company achieved in PYs 4-5 (an average of 944,116 MWH), and represents only 55% of what ComEd has achieved in the last two years.

ComEd is currently implementing programs for PY 6, and is in the third year of operating under the spending screen. CUB-City Ex. 1.0 at 10. Absent specific evidence per program of why ComEd will achieve lower goals while spending the same amount of money, it is clear that ComEd can achieve greater savings of at least 425,000 more MWH per year than the Company has proposed in this proceeding – almost twice as much as ComEd has proposed to achieve. *Id.* Given ComEd's demonstrated ability to achieve savings of around

[1] As used in this brief, "program budget" means funds used only for programs, and thus excludes evaluation, measurement, and verification ("EMV"), education and market transformation, research and development, and emerging technologies.

944,116 MWH by spending approximately $92 million, it is reasonable to expect ComEd to deliver similar energy savings especially since the proposed budget of approximately $100 million is greater than what ComEd has spent in previous PYs. *Id.*

Table 1: ComEd Electric Energy Efficiency Goals and Program Budget[2]

	PY 4	PY 5	PY 6	PY 7	PY 8	PY 9
Approved Modified Goal	610,804	827,575	831,425	N/A	N/A	N/A
Proposed Modified Goal (MWH)	N/A	N/A	N/A	535,500	522,750	498,000
Achievement (MWH)	943,704	944,529	N/A	N/A	N/A	N/A
% of Goal Achieved	155%	114%	N/A	N/A	N/A	N/A
Program Budget (in millions)	103.46	106.48	107.69	99.32	99.95	100.25
Amount Spent	92.72	91.662	N/A	N/A	N/A	N/A
% of Program Budget Spent	90%	86%	N/A	N/A	N/A	N/A

ComEd must demonstrate why the Company cannot achieve 45% more MWH than the Company has proposed. CUB-City Ex. 1.0 at 12. As illustrated in Table 1 above, ComEd has consistently exceeded its targets, showing that the Company is committed to meeting the requirements of the EEPS programs. CUB-City believe it is evident that ComEd can achieve more savings than the Company has proposed in this Plan.

It is possible ComEd's modest goals are motivated by the provision in the PUA that states that if the Company fails to meet the statutory savings targets, the Company is subject to penalties. 220 ILCS 5/8-103(i); 220 ILCS 5/8-104(i). While CUB-City are

[2] CUB-City Ex. 1.0 at 11.

sympathetic to ComEd's concerns related to the spending screen, ComEd is required by law to maximize achievement of savings under the spending screen. A spending screen is not an excuse for setting unrealistically low targets so that the Company can avoid any risk of penalties.

In addition to requesting that the Commission reduce ComEd's risk of not reaching their savings goals, ComEd has requested the right to adjust program budgets, goals, incentives, and measures during the Plan's implementation. ComEd Ex. 2.0 at 44. ComEd has previously requested approval of this flexibility from the Commission, and it has been granted in both previous plan filings. ICC Docket No. 07-0540, Final Order at 35 (Feb. 6, 2008); ICC Docket No. 10-0570, Final Order in at 37-38 (Dec. 21, 2010).

CUB-City support ComEd having flexibility to improve the performance of the portfolio. ComEd has used this flexibility to increase and decrease spending on measures and programs, or in other words, to shift spending between measures and programs and to change how programs are implemented. CUB-City Ex. 1 at 13. Such flexibility allows ComEd to respond to changes in the market, or changes in Technical Reference Manual ("TRM") or NTG values, which impact how much in net savings a program is anticipated to generate. *Id*. Such flexibility is a safeguard to help ComEd meet the goals and avoid being subject to the statutory penalty. CUB-City support ComEd having this flexibility, but do not support ComEd setting low goals that fail to account for the Company's past performance.

As Tables 1 above illustrates, ComEd has only been spending 86-90% of program budgets, while it has also consistently exceeded savings goals. This fact demonstrates that the savings goals for previous PYs were unnecessarily low. CUB-City Ex. 1.0 at 13-14. ComEd's performance indicates that the Company is sufficiently committed to meeting its savings goals, but the Company is clearly capable of achieving greater savings, especially

considering that the Company has not spent its entire program budget. *Id.* ComEd's repeated failure to spend the entire program budget *and* its ability to achieve savings beyond the targets illustrates that there is room for improvement. *Id.*

ComEd should be spending the entire program budget, which excludes marketing, administrative, and "EMV" costs. The goal of the EEPS is to maximize energy efficiency in Illinois while minimizing the impact program costs have on consumers' bills. 220 ILCS 8/103(a-d). The spending screen ensures that customers will not see increases of more than 2.015% as a result of these programs. Under the spending screen, utilities should spend money on energy efficiency programs, not limit how much they spend by proposing low goals.

CUB-City recommend the Commission follow the steps it took in Ameren's 2010 plan filing in ICC Docket No. 10-0568 and order ComEd to present a revised Plan. Final Order in ICC Docket No. 10-0568 at 30-31. The revised Plan should include increased savings goals that are in line with what the Company's achievements have been in previous years. If the Company predicts that any existing program or measure will lead to fewer MWH savings during the upcoming PYs than that program has been saving, ComEd must provide extensive explanation and evidence for stakeholder and Commission review and approval.

III. The Commission Should Reject ComEd's Modified Goal Proposal

The Office of the Attorney General ("OAG") and the Natural Resources Defense Council ("NRDC") comment on ComEd's proposal to set the modified goals at 5% below what the Company estimates it will actually achieve, even after reducing the statutory savings goals. OAG Ex. 1.0 at 13; NRDC Ex. 1.0 at 20. The OAG states that this "risk reduction strategy" is inappropriate, as "if ComEd has done successful and accurate planning, then it is asking the Commission to only set its goals at 95% of what it actually plans to achieve as a buffer against the possibility that it might not fully succeed." OAG

Ex. 1.0 at 13. The OAG elaborates that the goals should be set "based on what ComEd actually plans to achieve," and that "to do otherwise would be to explicitly set the goals lower than ComEd has indicated it can achieve within the spending cap. This shifts risk away from ComEd to ratepayers." *Id.* NRDC adds that if PJM Interconnection ("PJM") capacity market revenues - which ComEd has not accounted for in the Plan - remain at current levels in PYs 7-9, "they would provide the same 5% risk relief that Com Ed has suggested it needs." NRDC Ex. 1.0 at 20.

CUB-City agree that this risk reduction strategy is inappropriate for the EEPS, and that ComEd has other ways to reduce risk, including, as NRDC pointed out, using PJM revenues. NRDC Ex. 1.0 at 20. The OAG points to further existing strategies to reduce risk:

> 1) ComEd "has developed a portfolio that leaves ample room for adjustments and mid-course corrections during the three-year plan to allow it to make up for any assumptions that turn out to be too aggressive;"
>
> 2) the probability that savings will be higher should be similar to the probability that they will be lower;
>
> 3) the TRM deems savings values for the vast majority of ComEd's efficiency measures; and
>
> 4) all parties are in agreement that procedures should be established to deem NTG values so that "the risk ComEd faces is minimized and well within the range of what can be effectively managed through the Plan 3 period." OAG Ex. 1.0 at 14.

The Commission should order ComEd to remove this 5% risk reduction strategy from the revised Plan that the Company should file with the Commission.

IV. The Commission Should Reject ComEd's Proposal to "Bank" Savings Between EEPS Plans

The PUA is does not mention the word "banking." However, in the past year, the General Assembly amended the Act to allow ComEd to either meet annual incremental savings goals in the applicable year or by showing that the total cumulative annual savings

within a 3-year planning period is equal to the sum of the annual incremental savings requirements. 220 ILCS at 5/8-103(b). Though this language does not include the term banking, it means that ComEd and Ameren can bank savings within the years included in a plan filing, beginning with this Plan filing. For example, if ComEd exceeds the approved annual goal in PY 7, they can apply the MWH achieved beyond the PY 7 goal toward either PY 8 or PY 9 goal achievement. While under the original EEPS achievement in PYs 7 and 8 should constitute a third of the cumulative goal each year, essentially, the final count of savings would not occur until the end of PY 9. CUB-City Ex. 1.0 at 15.

The Commission has allowed ComEd to bank savings between program years in its two prior EEPS Plans, ICC Docket Nos. 07-0539 and 10-0570, although the language in the final orders in those proceedings varies and could be interpreted in different ways. ICC Docket No. 10-0570, Final Order at 53 (Dec. 21, 2010); ICC Docket No. 07-0540, Final Order at 40-41 (Feb. 6, 2008).

ComEd has banked savings of 39,369 MWH thus far. CUB-City Ex. 1.2 (ComEd DRR to NRDC 2.02 Attach 1). The Commission has not yet approved the amounts ComEd can bank in subsequent compliance dockets, which ComEd estimates is a total of banked savings from PYs 1-6 of 491,695 MWH. *Id.*

The Company requests that the Commission allow the Company to carry over banked savings from PYs 1-6 to PYs 7-9, and to carry over future savings from PYs 7-9 to future years. ComEd Ex. 2.0 at 60-61. ComEd's estimate of the number of banked savings the Company will have from PYs 7-9 is almost equivalent to the proposed modified goal for PY 9 the Company has presented in this Plan (491,695 versus 498,000 MWH). CUB-City Ex. 1.0 at 17. **If the Commission approves ComEd's request for the Company to be able to carry over banked savings from PYs 1-6 to PYs 7-9, then the banked savings would amount to almost one year's worth of proposed MWH savings**. *Id.*

ComEd did not account for the impact that the banked savings would have on goal achievement when it calculated its modified goals. CUB-City Ex. 1.0 at 17. ComEd's proposal would minimize the amount of savings that ComEd achieves in PYs 7-9. *Id.* ComEd is already greatly underestimating the amount of savings the Company is capable of achieving in the next few years. If the Commission allows ComEd to apply banked savings from earlier program years, ComEd will lack motivation to achieve additional MWH savings, and fall even further away from the statutory goals. CUB-City Ex. 1.0 at 17-18.

Banking was originally approved to ensure that ComEd would continue to run programs even after goals had been achieved. CUB-City Ex. 1.0 at 18. Now, six years in, it is evident that ComEd will continue to run programs, even if annual goals have been met, because shutting down programs is detrimental to their short and long term success. *Id.* The new, cumulative savings goal provides an even stronger incentive to continue programs after one year's goals are met.

ComEd has a history of exceeding the Commission approved goals while not spending the entire budget under the spending screen, but still falling short of the statutory goals. It is apparent that ComEd could achieve much greater savings than they have in previous years. ComEd is now in its sixth year of EEPS implementation; there is no reason to allow the Company to pad savings with banking beyond what is authorized by the General Assembly when the Company has repeatedly demonstrated its ability to achieve greater savings without banking.

CUB-City recommend that the Commission disallow the application of banked savings from PYs 1-6 to PYs 7-9, and reject ComEd's request to credit possible banked savings from PYs 7-9 to future plan years.

V. The Commission Should Require ComEd to Investigate and Implement Specific Demand Response Programs

The EEPS includes a requirement that ComEd implement cost-effective demand-response measures to reduce peak demand by 0.1% over the previous year. 220 ILCS 5/8-103(c). In ComEd's first EEPS plan filing, the Commission approved the implementation of the A/C Cycling program to meet the demand response goal, but declined to specify how the program should be run, stating: "The better approach, at this time, is to allow ComEd the flexibility to use its discretion to develop an effective program, as is needed, in accordance with those directives." ICC Docket No, 07-0540, Final Order at 49 (Feb. 6, 2008). In ComEd's last plan filing, the Commission approved ComEd's request to meet the demand response savings goal through implementation of the Company's energy efficiency programs. ICC Docket No. 10-0570, Final Order at 22-23 (Dec. 21, 2010).

In Ameren's last plan filing order, the Commission stated, "Ameren now argues, essentially, that it will meet the demand response requirements of Section 8-103(c) simply by implementing energy efficiency measures pursuant to Section 8-103(b) of the Act. At this time, the Commission is not convinced that this interpretation of the Act is correct." ICC Docket No. 10-0568, Final Order at 27 (Dec. 21, 2010). The Commission should apply the same level of scrutiny to ComEd's proposal here.

ComEd proposes to maintain the A/C Cycling program and to meet the demand response goal through implementation of energy efficiency programs. ComEd Ex. 1.0 at 15. While the Commission did approve this proposal in ComEd's last plan filing, the Commission had reservations about the same approach in Ameren's filing. The Commission's directives in Ameren's last Plan filing suggest that the achievement of demand response goals is a priority for the Commission. The Commission weighed several parties' ideas for meeting the targets, including a Voltage Optimization Program, the PSP

program, and the IPA's suggestion that the IPA acquire demand response. The Commission instructed Ameren to research cost-effective demand response measures for inclusion in its revised plan filing and for discussion with the SAG. The Commission then approved a Voltage Optimization Pilot for Ameren; the results of which were made available this fall. ICC Docket No. 10-0568, Final Order at 27 (Dec. 21, 2010).

CUB-City recommend that the Commission order ComEd to investigate measures or programs specifically designed to meet the demand response goals. CUB-City Ex. 1.0 at 24. The General Assembly established an entirely separate demand response goal, unique for the energy efficiency requirements. 220 ILCS 5/8-103(c). ComEd will begin deploying advanced metering infrastructure ("AMI") technologies later this year, pursuant to ComEd's participation in the Energy Infrastructure and Modernization Act ("the EIMA"). *Id*. This deployment will provide additional opportunities for ComEd to invest in demand response measures that the Company did not have in previous plan filings. The Commission should order ComEd to investigate potential demand response programs that could meet the statutory requirements, especially those that relate to AMI deployment, discuss these programs with the SAG, and include these programs in a revised Plan the Company submits to the Commission for approval. *Id*.

VI. The Commission Should Order ComEd to Implement a Voltage Optimization Program

CUB-City agree it is important to create efficiencies and generate customer benefits by integrating energy efficiency and AMI objectives. As a result, the Commission should order ComEd to adopt the recommendations ELPC made in direct testimony related to the implementation of a voltage optimization program. ELPC Ex. 2.0 at 2-13.

Voltage optimization ("VO") is a combination of Conservation Voltage Reduction (CVR) and Volt/VAR Optimization (VVO) which is intended to primarily reduce end-use

customer energy consumption and peak demand, and secondarily to reduce utility line losses." ELPC Ex. 2.0 at 5. Since the electricity delivered by utilities consists of usable real power (measured in Watts) and unusable reactive power (measured in Volt-Amperes Reactive or VARs), by reducing the amount of unusable reactive power utilities reduce line losses and improve the voltage profile along the feeder. ELPC Ex. 2.0 at 5. This is often accomplished by installing capacitors or reactors at strategic points along the feeder.

Volt/VAR Optimization (VVO) refers to the active management of reactive power at all points of a feeder to minimize losses and improve the voltage. When VVO is combined with Conservation Voltage Reduction (CVR), acceptable levels of power quality are maintained, distribution system losses are minimized, and customer energy savings and peak demand reductions are maximized." ELPC Ex. 2.0 at 6-7.

Together, these programs have the potential reduce line loss, improve voltage, minimize distribution system losses, and generate customer energy and peak demand savings while maintaining acceptable levels of power. CUB-City agrees with ELPC these the programs have very real value as cost-effective energy efficiency and demand response resources. CUB-City Ex. 2.0 at 13. By incorporating these programs into their Plan, ComEd can achieve significantly more energy savings and demand reductions for the same constrained budget." ELPC Ex. 2.0 at 34.

CUB-City support ELPC's recommendations for ComEd to explore offering a voltage optimization program that could generate customer energy and peak demand savings, thereby assisting ComEd in meeting both the energy efficiency and demand response statutory goals. ComEd should be directed to modify its Plan based upon the specific recommendations of ELPC.

VII. The Commission Should Require ComEd to Reallocate Portfolio Level Costs to Programs

Portfolio level costs include labor, EMV, education and outreach, and research and development ("R&D"), also referred to as Emerging Technologies. CUB-City Ex. 2.0 at 3. ELPC and NRDC critique ComEd's forecasted spending in three categories: education and outreach, R&D/Emerging Technologies, and labor, which total $39.4 million in PYs 7-9 and represent 11% of ComEd's proposed costs. ELPC Ex. 2.0 at 29. ELPC determined that the proposed budget for Education and Outreach is $9.4 million, or 130% greater than what was budgeted for PYs 4-6. ELPC Ex. 2.0 at 30. ELPC reports that "ComEd expects to continue the same marketing approach it currently employs." *Id.* As a result, ELPC recommends that the Commission order ComEd to cap the budget for Education and Outreach at 50% above Plan 2 levels ($11 million), which would free up $5.7 million to fund the Smart Device program. ELPC Ex. 2.0 at 30-31.

NRDC determined that Com Ed has proposed to spend approximately $6 million per year over the next three years on Education and Outreach. NRDC Ex. 1.0 at 14-15. NRDC states the Company spent $4.5 million on general education in PY4 and $4.4 million on general education in PY5. *Id.* NRDC states that the Company's explanation for increasing the education budget by one-third fails to explain what benefits the increase provides. *Id.* NRDC finds that it would be inappropriate for ComEd to increase the general education budget in PYs 7-9, and that if the Company kept general education spending in PYs 7-9 at PY 4 and 5 levels, $1.5 million would be available in additional funds for other programs. *Id.* at 15. NRDC states that this would allow the Company to generate 27,000 additional MWH savings in PYs 7-9. *Id.*

CUB-City agree with ELPC and NRDC that ComEd's proposed Outreach and Education budgets are inflated given that ComEd proposes to complete the same scope of work as the Company delivered in PYs 4-6, and that the Company has not justified why it requires a larger budget in PYs 7-9 than it has used historically for the same purposes.

CUB-City Ex. 2.0 at 4. CUB-City further agree with ELPC and NRDC that if a portion of the Education and Outreach budget were spent on programs instead, the Company could generate additional MWH savings and direct customer benefits.

ELPC states that the proposed Plan budget for R&D/Emerging Technologies is $3.05 million, or 40% greater than the previous budget, and that ComEd has historically underspent in this category, which has also failed to yield specific results. ELPC Ex. 2.0 at 31. ELPC also asserts that there is a lack of clarity regarding what outcomes ComEd anticipates the R&D expenditures will yield. As a result, ELPC finds the costs to be "unreasonably high," and recommends that the Commission order ComEd to redirect 100% of this proposed budget ($10.7 million) toward the integration of energy efficiency and demand response with AMI, which would include the Voltage Optimization and "Smart Devices" programs. ELPC Ex. 2.0 at 32.

NRDC makes many of the same points, stating that ComEd proposes to spend an average of around $3.6 million on R&D over the next three years, which is similar to the PY4 and PY5 budgets, but that the Company has "significantly underspent those budgets – spending only $1.0 million in PY4 and $1.1 million in PY5." NRDC Ex. 1.0 at 15-16. NRDC states that the R&D budget thus functions as a "'cash reserve' the company can draw upon to help meet goals that are set assuming such funds are not available." *Id.* at 16. NRDC recommends that the Commission set ComEd's R&D budget at $1.4 million per year, which is the most the Company has spent on R&D, and direct the remaining $2.2 million per year in additional funds toward program spending, which could enable the Company to achieve 39,000 more MWH over PYs 7-9. *Id.*

ComEd's R&D budget should not function as a cash reserve for meeting the goals; instead those funds should be directed to specific programs such as Voltage Optimization and "Smart Devices." ELPC defines smart devices as hardware on the customer side of the

meter that enables customers to reduce their energy use overall and at times of peak demand. ELPC Ex. 2.0 at 14. Smart devices are sometimes required for customers to participate in certain energy efficiency and dynamic pricing programs. *Id*. Examples of smart devices include thermostats, plugs, power strips, switches, smart chargers for electric vehicles, gateways, and in-home displays that can communicate with smart meters. *Id*. ELPC states that the "fastest path to significant energy efficiency and demand reductions for customers in Illinois," where so many customers participate in municipal aggregation programs to receive electricity supply, is to require "ComEd to enable as many devices and market participants as possible to utilize the AMI network and associated energy and price information." *Id*. at 16. CUB-City agree. ELPC recommends that ComEd:

- Establish interoperability standards for smart devices to communicate with smart meters and be willing to verify and register devices that a customer may purchase and install on their own. ELPC Ex. 2.0 at 17.
- Consider offering discounts or other incentives for smart devices. *Id*. (ELPC goes on to provide more detailed recommendations for a program Ameren could employ regarding smart devices. *Id*. at 17-19.)
- Develop and implement a comprehensive plan, involving manufacturers, retailers and other third parties, to enable Smart Devices to interact with ComEd's smart meters, and to make it easy for customers to identify and purchase these devices. The plan shall include:
- An approach for ComEd to accelerate the compatibility testing of a variety of Smart Devices with its AMI meters and to actively notify customers who have a smart meter of the availability of these devices;
- An approach for ComEd to allow Wi-Fi and Z-Wave devices to access the energy price and usage information available through its AMI network in addition to ZigBee device;
- A process for customers to verify and activate ComEd AMI-compatible devices that they may purchase and install on their own;
- An approach for ComEd to work with manufacturers and retailers to modify packaging or signage to indicate a device's compatibility with its meters and AMI. This may include discounts or other incentives in communities where ComEd smart meters are installed; and
- An approach for ComEd to more actively draw traditional device manufacturers (Honeywell, ecobee, Nest, 3M, etc.) and non-traditional market participants (Comcast, AT&T, Lowe's, etc.) to the Test Bed to

> certify Smart Devices, with an emphasis on Programmable Communicating Thermostats (PCTs). ELPC Ex. 2.0 at 34-35.

CUB-City support the creation of a smart device program. Further, the Company should discuss its plans for this program with the SAG and with the Smart Grid Advisory Council ("SGAC").

ELPC states that the Plan budget for non program specific labor is $6.4 million, or 115% greater than the budget for PYs 4-6. ELPC Ex. 2.0 at 32. ELPC finds the labor costs to be "unreasonably high," and recommends that the budget for non program specific labor be capped at PY 4-6 levels, which ELPC estimates to be $9.2 million. *Id.* ELPC recommends that the Commission order ComEd to reallocate the remaining $2.8 million of the proposed labor budget toward the AMI/EE/DR integration recommendations. *Id.*

NRDC states that the proposed labor budget of about $4.0 million is "roughly double" the PY 4-6 budget levels. NRDC Ex. 1.0 at 16. NRDC states that the Company's explanation for the increase does not fully explain the difference. *Id.* at 17. NRDC recommends that ComEd's non-program specific labor budget be reduced by an average of $0.5 million per year, to make it comparable to PY5 after adjusting for inflation, and to spend the remaining funds on programs, which could generate 9,000 MWH over three years. *Id.*

CUB and the City agree with ELPC and NRDC that ComEd hasn't adequately justified why the labor budget is projected to be higher for PYs 7-9 than it was for PYs 4-6, and that as a result, a portion should be directed to specific programs such as Voltage Optimization and "Smart Devices." The Commission should adopt ELPC and NRDC's recommendations. Specifically, the Commission should order ComEd to reallocate portions of the education and outreach, R&D, and labor budgets toward the voltage optimization and smart devices programs. ComEd's AMI investment must maximize energy efficiency and

demand response customer savings. The remainder of the funds should be directed toward program budgets as recommended by NRDC.

VIII. The Commission Should Limit ComEd's Flexibility to Adjust the Portfolio

ComEd requests "the flexibility necessary to manage the costs and the program and customer mix to determine when funds are reallocated and to properly manage the portfolio." ComEd Ex. 2.0 at 60. The Company will notify the SAG of changes that result in program budget shifts of more than 20%. *Id.* However, the OAG testified that "ComEd's request is too broad and effectively allows ComEd to easily "game the system." OAG Exhibit 1.0 at 24-25. This degree of flexibility would enable ComEd to "simply pursue a completely different plan than is designed to achieve savings much more cheaply simply by shifting from more expensive to less expensive programs." *Id.* Staff agrees that changes to the proposal are necessary. Staff Ex. 1.0 at 30.

The OAG makes two proposals for modifying ComEd's flexibility:

1) "Any shifts of budgets that result in a variance from planned annual program budgets of 20% or more would trigger goal adjustments. In other words, ComEd could underspend 10% in one program and overspend 15% in another program with no adjustments. However, if they were to shift resources beyond the 20% benchmark, then goals would be modified accordingly. For example, if program A had a cost of 40 cents/kWh and program B had a cost of only 5 cents/kWh, and if ComEd shifted funds beyond the limit from program A to program B, a commensurate increase in goals would be triggered based on the 8-times higher amount of kWh expected to come from the shifted dollars than what was originally planned. I note that this can also work in ComEd's favor if they are having success with an expensive program and want to shift funds into it. OAG Ex. 1.0 at 26-27.

2) ComEd should "bring any proposed modifications to the SAG for discussion and build consensus around the change. This should happen whether or not the 20% limit is exceeded, but is particularly important for big changes. The SAG has proven to be an effective sounding board to allow various stakeholders to provide input and ultimately help build support for the programs and provide the program administrators with an added level of security in knowing if any stakeholders have major concerns prior to any after-the-fact litigation. While I do not suggest the SAG should have the authority to overrule a program administrator decision, this process will ensure all stakeholders are aware of proposed changes and that ComEd has

> the opportunity to consider differing points of view prior to any final decision. In the event that a modification does require a modified goal, it can also reduce contentious litigation by ensuring all parties reach consensus on the exact amount to modify goals." OAG Ex. 1.0 at 28.

CUB-City agree with the OAG that the extent to which ComEd can modify spending on programs should be capped, as otherwise the Company would be able to essentially implement a different plan than the one being litigated in this docket. The OAG's proposed parameters are reasonable

IX. The Commission Should Not Require ComEd to Include Spillover as a Prerequisite to Using an NTG Approach

ComEd requests that the program evaluations, which include a NTG approach, address spillover in addition to free ridership from both the participant and nonparticipant perspectives. ComEd Ex. 2.0 at 66. A NTG approach attempts to capture the savings directly attributable to a specific energy efficiency measure or program, or in other words, savings that would not have occurred in the absence of a program. CUB-City Ex. 1.0 at 19. To do so, evaluators may take into account three categories of customers:

1. Customers who participated in a program because of an incentive being offered.
2. Customers who would have taken an action, such as purchasing a high efficiency clothes washer, regardless of whether an incentive was offered. These customers are referred to as "free riders."
3. Customers who took an action such as purchasing a high efficiency clothes washer as the result of an efficiency program, but without participating in the program (i.e., receiving an incentive for that clothes washer). These customers are referred to as "spillover." *Id.* at 19-20.

In employing a NTG approach, evaluators seek to count savings from the first class of customers, who invested in an energy efficient upgrade specifically because of the existence of an incentive program. *Id.* at 20. Depending on the type of NTG approach

employed, evaluators may or may not subtract "free rider" customers from the savings calculation, and they may or may not add "spillover" estimates to the savings calculation. *Id*. The end result is an estimate of how many therms or kilowatt hours are attributable to the program, expressed as a NTG percentage. *Id*.

Evaluators attempt to capture free ridership, but do not attempt to capture spillover to the same extent as free ridership to determine the "net" impact of programs, per the Act. 220 ILCS 5/8-103(f); 220 ILCS 5/8-104(f). CUB-City Ex. 1.0 at 20. As estimates of savings achievement, evaluations should be as accurate as possible. *Id*. at 21. Accurate NTG estimates include estimates of free ridership and estimates of spillover, so as to ascertain, as best possible, how many savings were created or achieved as a result of a program. *Id*. The OAG supports deeming spillover if sound judgment or research supports it, and if EMV results are not available. *Id*. at 40. NRDC states that "there may be times or situations in which it is appropriate to study either free ridership or spillover," but not necessarily "both at the same time or in the same study." NRDC Ex. 1.0 at 26. NRDC believes it is more appropriate to propose that "every NTG *factor* must reflect expected free ridership and spillover effects," rather than proposing that every study must address both. *Id*. at 27 (emphasis in original). NRDC agrees with the OAG that the evaluators can recommend NTG factors based on either evaluation results from Com Ed's territory or findings from other jurisdictions. *Id*.

Staff makes similar, though more specific, recommendations. Staff recommend that the Commission "direct the independent evaluators to make reasonable efforts to calculate both free ridership rates and spillover rates while being mindful of: (1) the costs of such evaluations, (2) the likely magnitudes of spillover and free ridership rates within a

program, and (3) the significance of the program to the overall portfolio savings. Staff Ex. 2.0 at 4.

CUB-City agree with ComEd that spillover should be included in NTG estimates, but agree with intervenors that spillover should not be a prerequisite for NTG estimates to be applied to programs. CUB-City Ex. 2.0 at 16. As Staff illustrates, there may be circumstances where evaluating spillover is expensive and the impact of including spillover would be minimal. Staff Ex. 2.0 at 6-8. If the Commission adopts NRDC and the OAG's proposal to use EMV results from other states to estimate spillover, this would mean that NTG estimates could become more accurate while not increasing the EMV budget. CUB-City recommend that the Commission adopt the recommendations made by the OAG, NRDC, and Staff related to estimating spillover.

X. Conclusion

The Commission should approve ComEd's Plan with CUB's recommendations provided above.

Dated: December 13, 2013

Respectfully submitted,

Kristin Munsch
Director of Policy and Senior Attorney
CITIZENS UTILITY BOARD
309 W. Washington, Suite 800
Chicago, IL 60606
(312) 263-4282
(312) 263-4329 fax
kmunsch@citizensutilityboard.org

Orijit K. Ghoshal
Assistant Corporation Counsel
City of Chicago, Department of Law
30 North LaSalle Street

Suite 1400
Chicago, IL 60602
(312) 744-6936
orijit.ghoshal@cityofchicago.org